

Map Index

Legend

- Principal Spillway
- Irrigation Outlet
- Irrigation Outlet (abandoned)
- CAP Overchute
- 10-ft Contours
- Proposed Interim Dam Safety Measure Alignment
- SR 802 Study Area Boundary
- Ponding Limits
- Apache Junction City Limits
- Modified Easement Boundary
- FEMA 100-Year Floodplain

Summary of Issues and Concerns for Powerline FRS

ADWR Notice of Deficiency

Foundation Concerns: Identification of earth fissure. Continues to classify Powerline FRS as being in an "unsafe, non-emergency, elevated risk" condition

Questionable adequacy of central filter

Hydrology

Overtops during Existing and Future Conditions PMP events

Existing and Future Conditions principal outlet design drain time is longer than 10 days

Auxiliary Spillway erodes and breaches during existing and future design hydrographs

Geotechnical

Potential Embankment failure modes

Collapsing Foundation Soils poor foundation conditions

Concern about the condition of the central filter, and performance adequacy

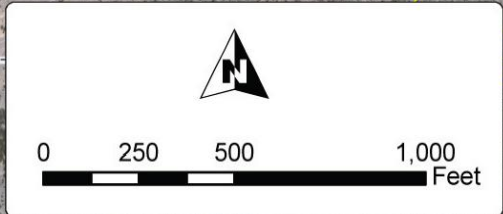
Geohazards

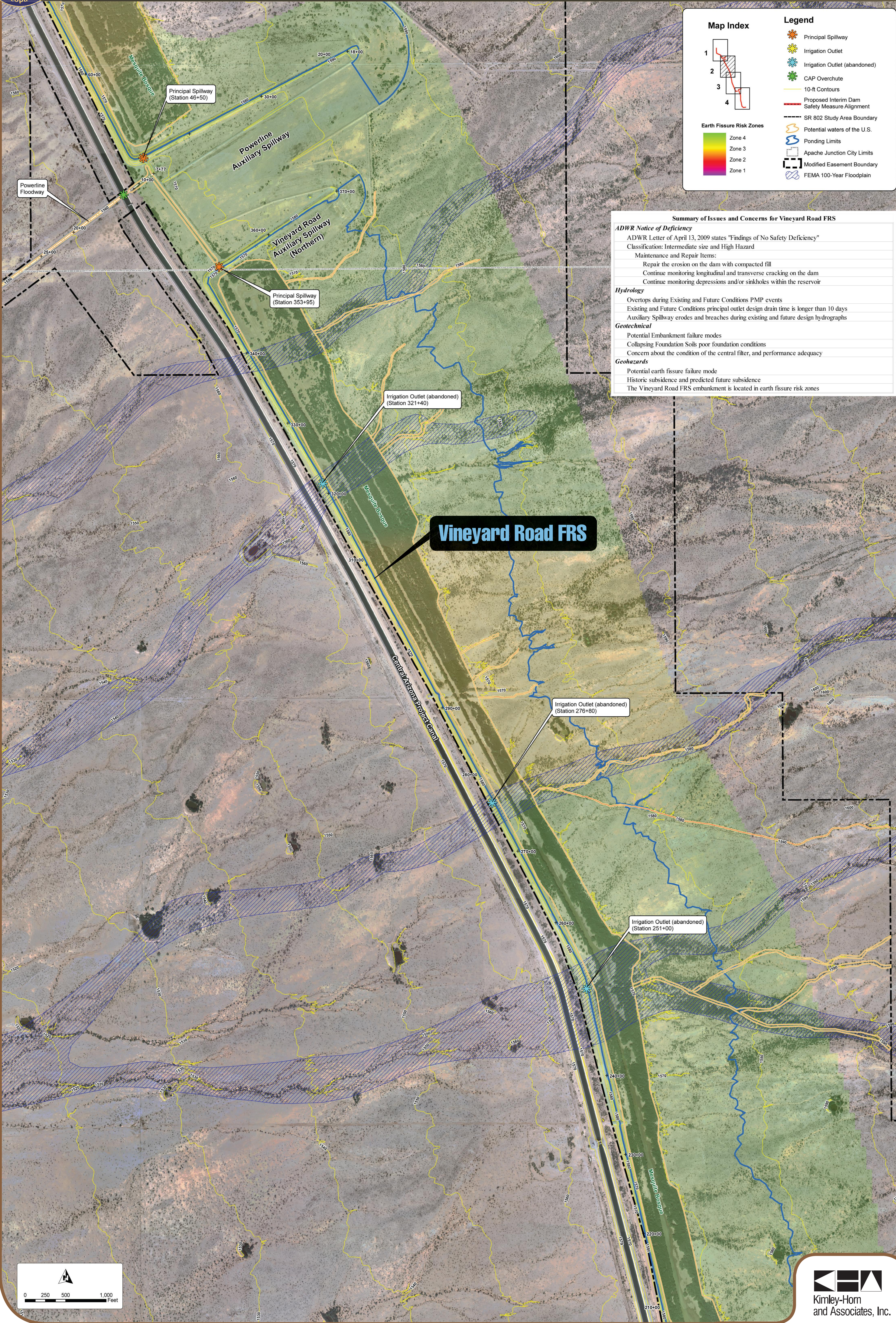
Potential earth fissure failure mode

Historic subsidence and predicted future subsidence

A portion of the Powerline FRS embankment is located in high earth fissure risk zones.

There is a known earth fissure immediately downstream of about Powerline FRS Station 115+45, and there is a high probability that the earth fissure is also present beneath the FRS embankment.





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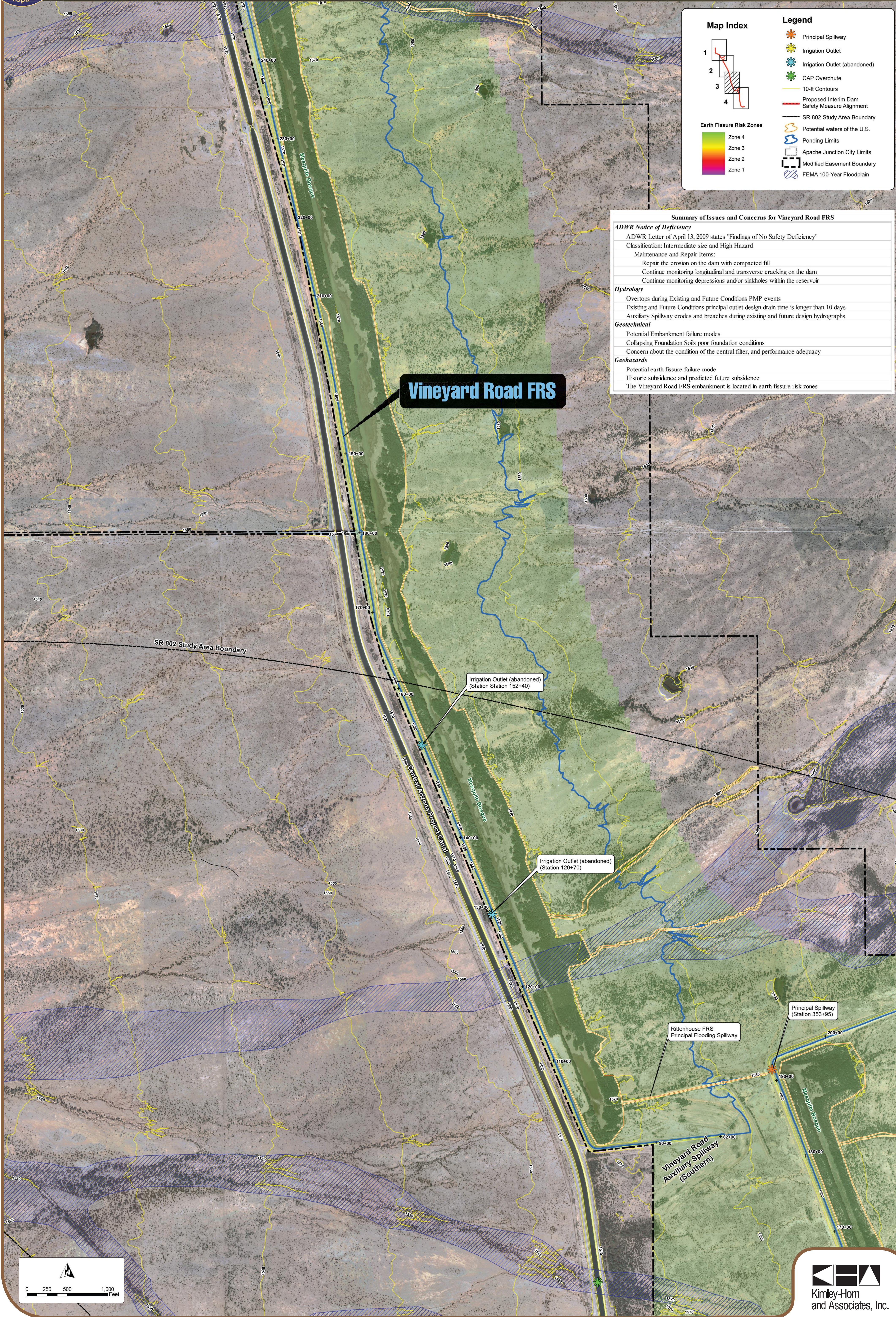
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Earth Fissure Risk Zones

- Zone 4
- Zone 3
- Zone 2
- Zone 1

Summary of Issues and Concerns for Vineyard Road FRS	
ADWR Notice of Deficiency	
ADWR Letter of April 13, 2009 states "Findings of No Safety Deficiency"	
Classification: Intermediate size and High Hazard	
Maintenance and Repair Items:	
Repair the erosion on the dam with compacted fill	
Continue monitoring longitudinal and transverse cracking on the dam	
Continue monitoring depressions and/or sinkholes within the reservoir	
Hydrology	
Overtops during Existing and Future Conditions PMP events	
Existing and Future Conditions principal outlet design drain time is longer than 10 days	
Auxiliary Spillway erodes and breaches during existing and future design hydrographs	
Geotechnical	
Potential Embankment failure modes	
Collapsing Foundation Soils poor foundation conditions	
Concern about the condition of the central filter, and performance adequacy	
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Historic subsidence and predicted future subsidence	
The Vineyard Road FRS embankment is located in earth fissure risk zones	



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ADWR Letter of April 13, 2009 states "Findings of No Safety Deficiency"
Classification: Intermediate size and High Hazard
Maintenance and Repair Items:
Repair the erosion on the dam with compacted fill
Continue monitoring longitudinal and transverse cracking on the dam
Continue monitoring depressions and/or sinkholes within the reservoir

Hydrology
Overtops during Existing and Future Conditions PMP events
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Auxiliary Spillway erodes and breaches during existing and future design hydrographs

Geotechnical
Potential Embankment failure modes
Collapsing Foundation Soils poor foundation conditions
Concern about the condition of the central filter, and performance adequacy

Geohazards
Potential earth fissure failure mode
Historic subsidence and predicted future subsidence
The Vineyard Road FRS embankment is located in earth fissure risk zones

Vineyard Road FRS

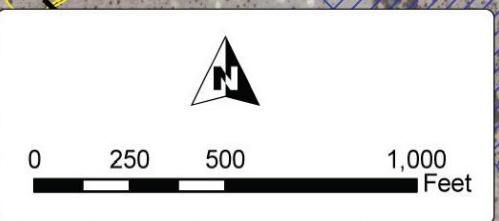
Irrigation Outlet (abandoned)
(Station 152+40)

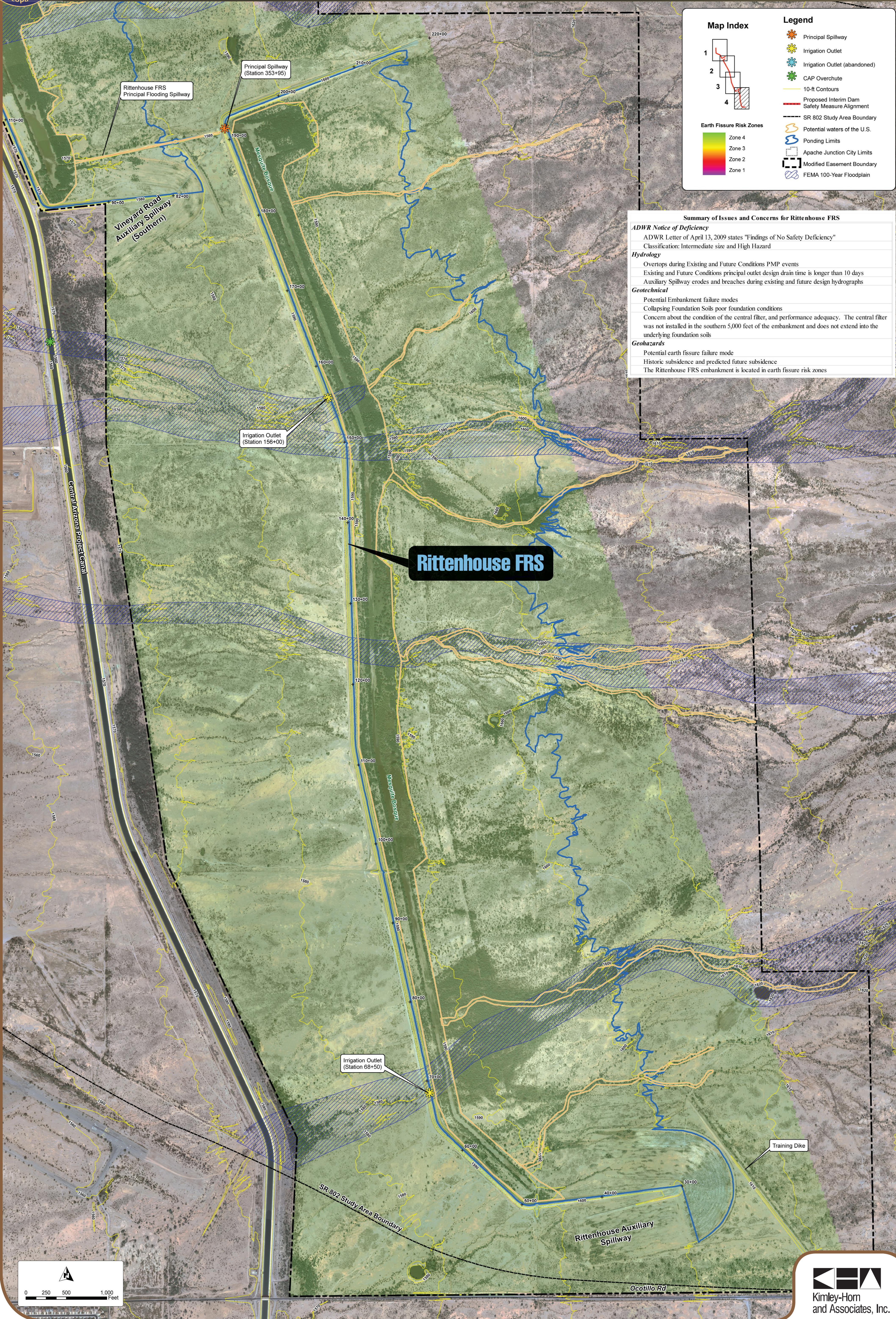
Irrigation Outlet (abandoned)
(Station 129+70)

Rittenhouse FRS
Principal Flooding Spillway

Vineyard Road
Auxiliary Spillway
(Southern)

Principal Spillway
(Station 353+96)





Summary of Issues and Concerns for Rittenhouse FRS

ADWR Notice of Deficiency	
ADWR Letter of April 13, 2009 states "Findings of No Safety Deficiency"	
Classification: Intermediate size and High Hazard	
Hydrology	
Overtops during Existing and Future Conditions PMP events	
Existing and Future Conditions principal outlet design drain time is longer than 10 days	
Auxiliary Spillway erodes and breaches during existing and future design hydrographs	
Geotechnical	
Potential Embankment failure modes	
Collapsing Foundation Soils poor foundation conditions	
Concern about the condition of the central filter, and performance adequacy. The central filter was not installed in the southern 5,000 feet of the embankment and does not extend into the underlying foundation soils	
Geohazards	
Potential earth fissure failure mode	
Historic subsidence and predicted future subsidence	
The Rittenhouse FRS embankment is located in earth fissure risk zones	

